CLAIMS

- l. A nonaqueous electrolyte secondary battery which comprises a positive electrode including particles of lithium-containing layered nickel oxide represented by a general formula $\text{Li}_a \, \text{Ni}_x \, \text{Co}_y \, \text{Al}_z \, M_b \, O_2$, wherein:
- $0.3 \leq a \leq 1.05, \ 0.7 \leq x \leq 0.87, \ 0.1 \leq y \leq 0.27, \ 0.03 \leq z \leq 0.1, \ 0 \leq b \leq 0.1;$ M is at least one selected from metallic elements except Ni, Co and Al, and

in binding energy of oxygen 1s spectrum when measuring said particles by XPS, if a peak area appearing at 529eV is set to D; a peak area appearing at 531eV is set to E; oxygen concentration ratio is set to D/(D+E); and oxygen concentration ratios at depths of L1 nm and L2 nm from the particle surface are respectively set to α_{L1} and α_{L2} , a combination of L1 and L2 in which $(\alpha_{L2} - \alpha_{L1})/\alpha_{L2} \le 0.1$, $L1 \le 100$, $L2 \ge 500$ is present.

- 2. The nonaqueous electrolyte secondary battery according to claim 1, wherein said particles are crushed in an argon-gas atmosphere.
- 3. The nonaqueous electrolyte secondary battery according to claim 1, wherein average particle size D_{50} of said particles is 4-20 μm .
- 4. The nonaqueous electrolyte secondary battery according to claim 3, wherein the average particle size D_{50} of said particles is 9-10 μm .

- 5. The nonaqueous electrolyte secondary battery according to claim 1, wherein BET specific surface area of said particles is $0.1\text{-}1\ m^2/g$.
- 6. The nonaqueous electrolyte secondary battery according to claim 5, wherein the BET specific surface area of said particles is $0.3-0.4~{\rm m}^2/{\rm g}$.
- 7. The nonaqueous electrolyte secondary battery according to claim 1, wherein a combination of L1 and L2 in which $-0.1 \le (\alpha_{L2} \alpha_{L1})/\alpha_{L2} \le 0.1$, $L1 \le 100$, $L2 \ge 500$ is present.
- 8. The nonaqueous electrolyte secondary battery according to claim 7, wherein the combination of L1 and L2 in which $0 \le (\alpha_{L2} \alpha_{L1})/\alpha_{L2} \le 0.1$, $L1 \le 100$, $L2 \ge 500$ is present.
- 9. The nonaqueous electrolyte secondary battery according to claim 1, wherein $0.98 \le x+y+z+b \le 1.01$.
- 10. The nonaqueous electrolyte secondary battery according to claim 1, wherein M is a transition metal element except Ni and Co.